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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/726,240 | 12/02/2003 | Phillip Clark | MCA-635 | 3523 |
| 42754 | 7590 | 10/18/2005 | | |
| NIELDS & LEMACK 176 EAST MAIN STREET, SUITE 7 WESTBORO, MA 01581 | | | EXAMINER MENON, KRISHNAN S | |
| | | | ART UNIT 1723 | PAPER NUMBER |
| DATE MAILED: 10/18/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,240

Applicant(s)

CLARK ET AL.

Examiner

Krishnan S. Menon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-5 and 7-13 are pending

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroy et al (US 5,252,294).

Claim 1: Kroy teaches a device (abstract) having a surface comprising multiple spatially discrete regions (Fig 14) having utilitarian discontinuities (abstract) having different functionalities (also col 1 lines 31-63). Discrete regions separately removable from base – see col 8 lines 1-10. Kroy does not teach the discontinuities as being spaced apart at 2.25 mm. However, this limitation is only a relative dimension to suit a standardized (SBS guidelines) automation system, and has no patentable merit. In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Please note that the claims do not recite any structural differences between the utilitarian discontinuities. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)

Claim 2: Discrete regions arranged in a row (see fig 15)

Claim 3: one of the functionality is filtration – col 3 lines 30-35

Claim 4: includes a membrane – col 3 lines 35-40: permeable structures.

Claim 7: discrete regions in sealing relationship with base – col 8 lines 1-10)

Claim 8: support structure to position removable vessels – Fig 14, col 8 lines 1-10.

Claims 9, 12, 13: Claim 9: discrete regions having sub-regions with different functionalities; Claim 12: discrete regions having sub-regions with discontinuities different from other discontinuities within the discrete region; Claim 13: discrete regions having sub-regions selected from filter wells, wash wells, etc.: – abstract, col 1 lines 31-

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63, especially, *"The arrangement of suitable cavities relative to each other in the structure in the manner of a matrix or an array permits simple process control and the carrying-out of desired reactions, of desired small amounts of substance as well as their targeted treatment and examination"*, describe different functionalities in the same matrix. Also see figures 15-18 and claims 1 and 15, wherein claim 1 is a micromechanical structure having different functional discontinuities, and claim 15 is for several of them removably mounted on a carrier (or base).

Claim 10: discontinuities are wells: col 3 lines 58-62

Claim 11: discrete regions in columns – fig 14: columns and rows.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kroy et al (US 5,252,294) in view of Sarrasin (US 5,009,780).

Kroy teaches a device (abstract) having a surface comprising multiple spatially discrete regions (Fig 14) having utilitarian discontinuities (abstract) having different functionalities (also col 1 lines 31-63); discrete regions separately removable from base – see col 8 lines 1-10 as in claim 1. Claim 5 adds the further limitation of ultrafiltration membrane for the filter, which is not taught by Kroy. Sarrasin teaches ultrafiltration membranes for the multi-well plate (see figures, col 3 lines 30-38. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Sarrasin in the teaching of Kroy because Kroy does not teach any particular filter or membrane to be used and also if one is interested in retaining molecules of 100-2,000,000 daltons.

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3. Claims 1,2 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (US 2003/0108453 A1) in view of Kroy'294.

Nguyen teaches a device having a surface having multiple (applicant uses the words 'multiple' and 'plurality' in the claims to mean the same; 'multiple' by Webster's Collegiate Dictionary, 10th Ed., means 'consisting of more than one'; the examiner therefore gives the broadest reasonable limitation to the claim, and consider 'multiple' and 'plurality' in the claims to mean as 'more than one' for examination purposes) discrete regions and sub-regions as in the instant claims: See the figure – the plate depicted can be have different regions and sub-regions, with different functionality in each region and sub-regions. For example, the plate can be divided into two regions, one to the left of the arrow 15 and the other to the right of the arrow 15. The regions have sub-regions as rows (or columns depending on how one looks at it) having wells with different functions. The functions of the wells can be storage, wash well, or cycle wells (see page 1 para 8, page 2 para 9,14 and 15). Nguyen does not teach discrete regions separately removable from base, but Kroy teaches this – see col 8 lines 1-10. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Kroy in the teaching of Nguyen for *"The arrangement of suitable cavities relative to each other in the structure in the manner of a matrix or an array permits simple process control and the carrying-out of desired reactions, of desired small amounts of substance as well as their targeted treatment and examination"*, as taught by Kroy, col 3 lines 50-63. One would also use the teaching of Kroy in the teaching of Nguyen because of Kroy's teaching of the carrier for transportation to a plurality of

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stations for automated testing (see claim 15), especially for dangerous materials (col 1 lines 33-36).

Response to Arguments

Applicant's arguments filed 9/2/05 have been fully considered but are not fully persuasive.

In the remarks, applicant stated that the rejection for claims 1-4 and 7-13 were under 35 USC 102(b) as anticipated, which is in error. The rejection of these claims were under 35 USC 103(a).

In response to the argument that *In re Gardener* would not support the rejection because the dimensions of multiples of 2.25 mm is critical for enabling the device to be automated, which is not possible with Kroy device: Applicant's attention is directed to figure 14 and column 8 lines 1-21, which describe in details about automation using the Kroy device. Therefore, this argument is not persuasive. More over, a change in the dimensions for the purpose of automation is not patentable. Broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art. (*In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

In response to the argument that Kroy does not teach utilitarian discontinuities in discrete regions with different functionalities: (1) Kroy does teach different functionalities (see abstract, column 4 lines 5-68, etc). (2) Limitations are only functional, which is not patentable as discussed in the rejection.

In response to the arguments re the relative dimensions with respect to the Nguyen reference, this is already addressed in the above paragraphs.

With respect to the argument that Kroy claim 15 recites structures that are fixed: the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the present situation, the teaching of Kroy of automation for "handling dangerous materials" would be the motivation, not whether it is fixed or separately removable.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

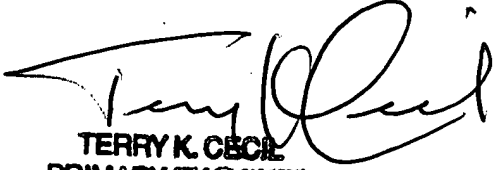
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan S. Menon
Patent Examiner
10/5/05


TERRY K. CECIL
PRIMARY EXAMINER